DOCUMENT RESUME

ED 249 363 CE 039 782

AUTHOR Dunn, Polly P.; And Others
TITLE Homemaker Reaction to EFNEP/Food Stamp Pilot Nutrition Education Project. A 1983 Pennsylvania and Massachusetts Survey. Extension Studies 92.
INSTITUTION Pennsylvania State Univ., University Park. Cooperative Extension Service.
SPONS AGENCY Extension Service (DOA), Washington, D.C.
PUB DATE Aug 84
CONTRACT 12-05-300-543
NOTE 42p.; A presentation based on this document was given at the National Adult Education Conference (Louisville, KY, November 6-10, 1984).
PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Adult Education; Correspondence Study; *Delivery Systems; Economically Disadvantaged; Educational Strategies; *Foods Instruction; *Homemakers; Home Programs; Instructional Materials; *Low Income Groups; National Surveys; *Nutrition Instruction; Outcomes of Education; Postsecondary Education; Program Effectiveness; Questionnaires; Teaching Methods
IDENTIFIERS *Expanded Food and Nutrition Education Program; Food Stamp Program; Massachusetts; Pennsylvania

ABSTRACT

Between 1982 and 1983, more than 750 homemakers from Pennsylvania and Massachusetts participated in a national study to test selected methods of delivering nutrition education to low-income families. The study, the Expanded Food and Nutrition Education Program (EFNEP)/Food Stamp Pilot Project, was conducted through the EFNEP in 10 states. At the conclusion of the study, Pennsylvania and Massachusetts conducted a survey of 241 homemakers who had participated in the program in order to determine the effectiveness of the delivery system used in the EFNEP pilot project--a combination of lessons given face-to-face as home visits and mailed lessons supplemented by follow-up telephone calls. Responses to the survey indicated that low-income homemakers were very interested in receiving all kinds of food and nutrition information, especially that relating to how to stretch a food dollar. Although most respondents preferred one-to-one lessons in the home, they were also receptive to the alternative method of combining direct and indirect contacts as used in the project. A majority of the respondents reported changing old habits and adopting new ones as a result of participating in the project and nearly all of them reported sharing learned information with others. (The survey instrument is appended.) (MN)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED249363

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)

- This document has been reproduced as received from the person or organization originating it.
  Minor changes have been made to improve reproduction quality.

- Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

HOMEMAKER REACTION TO EFNEP/FOOD STAMP PILOT NUTRITION EDUCATION PROJECT

A 1983 Pennsylvania and Massachusetts Survey

Polly P. Dunn
The Pennsylvania State University

Mary Jane Laus
University of Massachusetts

Leslie Turner
University of Massachusetts

Emory J. Brown
The Pennsylvania State University

June 1984

Cooperative Extension Service
The Pennsylvania State University
University Park, Pennsylvania 16802

The survey was conducted as part of a pilot project funded by The Extension Service, U.S. Department of Agriculture, Cooperative Agreement No. 12-05-300-543.

Table of Contents

INTRODUCTION 1

OVERVIEW OF EFNEP/FOOD STAMP PILOT PROJECT 1

- Purpose 1
- Staffing 2
- Curriculum Materials 3
- Recruitment of Participants 4
- Data Collection and Analysis 4

HOMEMAKER SURVEY METHODOLOGY 4

- Participants 4
- Participant Characteristics 6
- Questionnaire 8
- Procedures 8

HOMEMAKER SURVEY FINDINGS 9

- Teaching Methods and Materials 9
- Learning Outcomes of the Project 15
- Information Sharing 19

DISCUSSION AND CONCLUSIONS 20

SUMMARY 26

APPENDIX - Survey Questionnaire 28

Special recognition is given to Extension home economists and nutrition aides in the Pennsylvania and Massachusetts project sites. [Pennsylvania: Blair/Huntingdon, Cambria, and Luzerne counties; Massachusetts: Brockton (Plymouth County), Cambridge/Somerville (Middlesex County), Springfield/Chicopee (Hampden County), and Worcester (Worcester County).]

INTRODUCTION

Between 1982 and 1983, more than 750 homemakers from Pennsylvania and Massachusetts participated in a national study to test selected methods of delivering nutrition education to low-income families. The study, the EFNEP/Food Stamp Pilot Project, was conducted through the Expanded Food and Nutrition Education Program (EFNEP) in ten states. Pennsylvania and Massachusetts, two of the states involved in the study, pilot tested a combination of lessons given face-to-face as home visits and mailed lessons supplemented by follow-up telephone calls.

At the conclusion of the study, Pennsylvania and Massachusetts conducted a survey of program participants, asking for their impressions of the pilot project. The survey focused on three topics:

1. Homemakers' reactions to the instructional methods and materials used in the pilot project.
2. Teaching content that homemakers considered most helpful and the extent to which nutritional practices reportedly were adopted.
3. Extent to which homemakers discussed program information with others.

The purpose of this paper is to report the results of the Pennsylvania and Massachusetts surveys and to discuss their implications for EFNEP.

OVERVIEW OF EFNEP/FOOD STAMP PILOT PROJECT

Purpose

The purpose of the EFNEP/Food Stamp Pilot Project was to provide evaluative data for analyzing the efficiency of selected teaching methods. The study examined three different treatments:

Treatment 1: one-to-one contacts plus mailed lessons supplemented by telephone calls

Treatment 2: one-to-one contacts plus group lessons supplemented by telephone calls

Treatment 3: one-to-one contacts plus group lessons

Pennsylvania and Massachusetts tested treatment 1.[1] This treatment was chosen in an effort to overcome the problems of dispersed populations and to reach increased numbers of homemakers. Each local project site in these states contained an experimental, a traditional, and a control group of homemakers. Homemakers assigned to the experimental group received five nutrition lessons face-to-face plus seven mailed lessons, each of which was followed up by telephone contacts. Homemakers who were assigned to the traditional group received all 12 nutrition lessons on a one-to-one basis. Control group homemakers received no lessons during the project period.

Staffing

In Pennsylvania, EFNEP staff in three sites were chosen to participate in the study: Blair/Huntingdon, Cambria, and Luzerne Counties. In Massachusetts, study sites were located in four major urban areas across the state: Brockton (Plymouth County), Cambridge/Somerville (Middlesex County), Springfield/Chicopee (Hampden County), and Worcester (Worcester County). Extension home economists and EFNEP supervisors were responsible for the aides' teaching and served as liaisons between the counties and the universities. A total of twenty-five nutrition aides in Pennsylvania and Massachusetts provided nutrition education to homemakers in this project.

---

[1] Data collection and analysis for the study were performed by SRI International under contract with the U.S. Department of Agriculture.

Curriculum Materials

The standard curriculum consisted of twelve lessons which covered the basic four food groups, menu planning, and food shopping. Five table-size flip charts, "Eating Right Is Basic,"[2] formed the basis for the first ten lessons homemakers received. The flip charts were designed so that the aide read the text while the homemaker looked at a pictorial presentation of the message. The homemaker did not see the lesson text.

Lessons 11 and 12, "It Pays to Shop with a List" and "Let's Play the Supermarket Game," were book-size flip charts.[3] The nutrition aide read the text along with the homemaker. Although all the flip charts contained pictures, Florida's mostly were simple line drawings with no color, while Michigan's were illustrated more elaborately and incorporated color.

Mailed lessons were developed by Massachusetts EFNEP to substitute for seven face-to-face contacts and were used by both Pennsylvania and Massachusetts.[4] Within one week of the homemaker's receipt of the mailed lesson, the nutrition aide telephoned him or her. The aide reviewed the information in the brochure and on the activity sheet, and answered any questions the homemaker had. No new subject matter was taught during the telephone call.

---

[2]Michigan State University Cooperative Extension Service, "Eating Right Is Basic," East Lansing, Michigan, 1981.

[3]Florida Cooperative Extension Service, "It Pays to Shop with a List" and "Let's Play the Supermarket Game," University of Florida, Gainesville, Florida, 1979.

[4]Massachusetts Expanded Food and Nutrition Education Program, Mail Brochure Course, Cooperative Extension Service, University of Massachusetts, Amherst, Massachusetts, 1981.

Recruitment of Participants

EFNEP staff recruited homemakers principally by sending promotional literature to families who lived in project areas and who were included on state welfare agency mailing lists. Extension staff in Pennsylvania mailed recruiting materials to families directly; in Massachusetts staff at the state office for the Department of Public Welfare mailed the materials.

Homemakers in each state who were interested in receiving nutrition lessons responded by calling an 800 telephone number. Homemakers were screened for eligibility on the basis of low-income guidelines, age of children, and participation in EFNEP. Eligible homemakers were then randomly assigned to either an experimental, a traditional, or a control treatment group.

Data Collection and Analysis

Project teaching lasted one year. During each homemaker's six-month instructional period SRI International collected data at three points: the outset, midpoint, and six months. The 24-Hour Food Recall provided information on homemakers' food consumption, and the Homemaker Questionnaire measured their knowledge of nutrition information and their food preparation and shopping practices. SRI conducted the analysis and prepared a final report.

HOMEMAKER SURVEY METHODOLOGY

Participants

Two hundred ninety-one homemakers from Pennsylvania and 262 from Massachusetts completed the pilot project. They constituted the survey population. A total of 149 Pennsylvania and ninety-two Massachusetts

homemakers participated in the survey. Among the Pennsylvanians, seventy received one-to-one home visits for their program instruction and seventy-nine received the combination of mailed lessons and telephone calls. In Massachusetts, fifty-six participants received the one-to-one lessons and thirty-six received the mailed lessons with telephone contacts.

Pennsylvania and Massachusetts recruited survey participants somewhat differently. Toward the end of the pilot project, homemakers in both states were asked if they would participate in post-program evaluations. At the same time the states were recruited survey participants, they also asked project homemakers if they would like to be included in a six-month follow-up study.[5] In Pennsylvania, participation in the homemaker survey was treated independently of participation in the follow-up study, while homemakers in Masssachusetts who chose to participate in their survey understood that they also were part of the follow-up study. In addition to an initial interview which included questions about their reactions to the pilot project, Massachusetts homemakers consented to being contacted two more times during the following six months. Although Pennsylvania's homemaker survey also was conducted along with the follow-up study and included some survey participants, participation in the follow-up study was not a condition for being included in the survey.

---

[5] Both Pennsylvania and Massachusetts initiated a follow-up study to test homemakers' retention of nutritional knowledge and practices learned as a result of their participation in the pilot project. While the two states differed in their design and procedures for implementing the follow-up, homemaker recruitment for the follow-up as well as the survey occurred at the same time, immediately after project completion.

Thus, self selection was used to recruit survey participants in both states. The difference was that Massachusetts homemakers were self-selected on the basis of their willingness to participate in another long-term study. Having signed on for six more months, these homemakers probably were more inclined to view the project favorably than were those who declined to participate. Given this bias, Massachusetts homemakers might appear to react more positively to the project in general than would their colleagues in Pennsylvania.

Participant Characteristics. With only a few exceptions, survey participants in both states had similar characteristics. All but seven participants of the total were women. Pennsylvania homemakers were an average age of twenty-nine years; those in Massachusetts averaged thirty-two years. Ninety-one percent of homemakers in Pennsylvania and 79 percent in Massachusetts were white. Approximately 7 percent of Massachusetts participants were black and 13 percent were Hispanic.

Table 1 shows the place of residence of the survey participants.

Table 1

Place of Residence of Survey Participants

State	Farm, Towns Under 10,000 Pop. and Rural Nonfarm Areas	Towns & Cities 10,000-50,000 Pop.	Suburbs of Cities Over 50,000 Pop.	Cities Over 50,000 Pop.	Total	No. of Participants
	----------percent of participants----------					
Pennsylvania	76	24	—	—	100	149
Massachusetts	—	4	5	90	99	92

While Pennsylvania homemakers primarily were rural residents, homemakers in Massachusetts were urban residents. More than three-fourths of Pennsylvania homemakers lived on farms, in towns under 10,000 population, and in rural nonfarm areas; the rest resided in towns and cities between 10,000 and 50,000. On the other hand, 90 percent of the Massachusetts homemakers lived in cities of 50,000 or more.

Asked about their participation in public assistance programs, 73 percent of homemakers in Pennsylvania and 87 percent in Massachusetts said they received food stamps; 43 percent in Pennsylvania and 25 percent in Massachusetts said they participated in the WIC (Women, Infants, Children) program. Massachusetts homemakers were more likely to be on welfare; 76 percent in Massachusetts compared to 46 percent in Pennsylvania were welfare recipients.

Homemakers' monthly incomes were similar. Forty-six percent of Pennsylvania homemakers and 41 percent of those in Massachusetts had monthly incomes of less than $418 per month. About one-third in both states had incomes of over $520 per month.

However, educational levels of participating homemakers varied considerably. Table 2 shows the distribution.

Table 2

Highest Educational Level Achieved by Survey Participants

State	8th Grade or Less	9th-10th Grades	11th-12th Grades	Beyond High School	Total	No. of Participants
	percent of participants					
Pennsylvania	6	13	73	8	100	139
Massachusetts	13	19	46	22	100	91

Almost three-fourths of Pennsylvania's homemakers had received a high school education; less than half of the participants in Massachusetts were educated at the eleventh or twelfth grade level. However, almost one-fourth of the respondents in Massacuchetts had completed their education beyond high school, 8 percent had done so in Pennsylvania. At the same time, nearly one-third of the homemakers in Massachusetts were not educated beyond tenth grade.

The number of family members showed little variation between states. Pennsylvania participating families had an average of 3.9 members; Massachusetts averaged 3.8 members. About one-sixth of participants in both states had only two members in the family, and approximately one-tenth had six or more members. Slightly more than one-third of Pennsylvania and Massachusetts respondents had no children in the family under five years of age. However, approximately 63 percent of Massachusetts families and 34 percent of Pennsylvania families had only one adult in the family.

Questionnaire

The questionnaire was designed to determine homemakers' reactions and perceptions of the pilot project in three areas: teaching methods and materials, program content and learning outcomes, and shared information from the program (see Appendix). Questions which focused on the mail plus telephone lessons were addressed only to participants in the experimental treatment group because these questions were not applicable to homemakers who received home visits only.

Procedures

Pennsylvania and Massachusetts followed the same procedure for administering the survey. It was administered by telephone; female

graduate students conducted the interviews. Interviewers contacted most of the homemakers within one month after they had completed the pilot project. The interviewers attempted to contact homemakers as many times as necessary in order to reach them. Interviews lasted fifteen to twenty minutes. Interviewers encountered some problems contacting homemakers because they had moved or their telephones had been disconnected.

HOMEMAKER SURVEY FINDINGS

Teaching Methods and Materials

Table 3 shows the preferences of homemakers assigned to the experimental group for the kind of lessons they received: lessons in the home, mailed lessons, or a combination of some lessons at home and some mailed.

Table 3

Preferences of Experimental Homemakers for Type of Teaching Method

Preferred Teaching Method	Pennsylvania	Massachusetts
	percent of respondents	
Lessons in home	54	32
Mailed lessons	9	9
Combination home and mailed	37	59
Total percent	100	100
Number of respondents	78	34

Slightly over half (54 percent) of the homemakers in Pennsylvania most preferred lessons in their home, while the majority (59 percent) of Massachusetts respondents indicated their preference for the combination of some at home and some mailed. Slightly more than one-third (37 percent) in Pennsylvania preferred the combination home and mailed lessons and nearly under one-third (32 percent) in Massachusetts chose lessons in the home. Nine percent of homemakers in each state preferred the mailed lessons exclusively. Thus, home lessons and the combination of home and mailed lessons are the two teaching methods most preferred by Pennsylvania and Massachusetts homemakers. Mailed lessons only were the least preferred.

All surveyed homemakers were asked about their preferences for the number of lessons and the frequency with which they receive them. Asked about the number of lessons they would like to receive, about two-thirds of the homemakers in both states indicated they preferred the same number of lessons (twelve) they had received in the program. Approximately one-third would like to have had more lessons, and less than 10 percent in each state preferred fewer lessons. Responding to how often they would like to receive lessons, at least three-fourths of the participants in Pennsylvania and Massachusetts most preferred the same frequency they had experienced; this was approximately every two weeks. About one-fifth would like to have had more frequent lessons, and less than 10 percent chose less frequent lessons.

All homemakers were asked to react to the different materials used in the lessons. Table 4 summarizes respondents' reactions to the flip charts. Three-fourths of homemakers in both states felt the information was generally understandable; approximately one-fourth thought it was too easy. Over 85 percent of homemakers in each state felt they had received

Table 4

Reactions of Homemakers to Flip Charts

Question Topic	Pennsylvania	Massachusetts
	----------percent of respondents----------	
(a) Difficulty of understanding information		
Too hard	3	2
Generally understandable	74	74
Too easy	22	24
Total percent	99*	100
Number of respondents	147	92
(b) Amount of information in lessons		
Too little	12	10
Right amount	86	85
Too Much	1	5
Total percent	99*	100
Number of respondents	148	89
(c) Did pictures help homemakers understand information?		
Made it harder	1	0
Made it easier	74	77
Neither helped nor hurt	25	23
Total percent	100	100
Number of respondents	147	92

* Percentages may not total 100 due to rounding.

the right amount of information in the lessons and about three-fourths of the participants thought the pictures helped their understanding of the information.

Overall, homemakers in both states were pleased with the flip charts. Some would have liked the flip charts to contain more challenging information or more information in each lesson. While most homemakers said they benefited from the pictures, approximately one-fourth felt the pictures did not affect their understanding of the lessons.

The survey asked assigned to the experimental group homemakers for their reactions to the level of difficulty and the amount of information contained in the mailed lessons. The majority of homemakers in both states gave positive evaluations for these items. Eighty-five percent of Pennsylvanians and 86 percent of respondents in Massachusetts said the information in the mailed lessons was generally understandable. Among Pennsylvania participants, 78 percent thought the lessons contained the right amount of information; 94 percent in Massachusetts felt this way.

Experimental homemakers also were asked to give their impressions of the telephone calls. Table 5 shows the responses that indicate participants' approval. More than 80 percent of the homemakers in both states felt the phone calls lasted the right amount of time, agreed that the right amount of information was discussed, and rated the calls as generally or very helpful.

Table 5

Reactions of Experimental Homemakers to Telephone Calls

Telephone Call Criteria	Pennsylvania	Massachusetts
	---percent of respondents saying "yes"---	
Right length of time	87	83
Right amount of information	86	86
Generally or very helpful	84	89
Number of respondents	79	36

In order to obtain homemakers' reactions to the program as a whole, the survey asked if they had recommended the program to other people. Fifty-eight percent of all respondents in Pennsylvania and 76 percent in Massachusetts said they had. Those who had not recommended the program were asked if they would; all of them responded positively.

Homemakers in both states reacted similarly when they were asked what they would like to see changed in the program. Fifty-seven percent of Pennsylvania homemakers and 58 percent of Massachusetts respondents said they did not know or there was nothing they would change. They appeared to be generally pleased with the program. Of those who suggested changes (43 percent in Pennsylvania and 41 percent in Massachusetts), responses indicated a general desire for additional nutritional information. Table 6 shows the changes most often suggested by homemakers. They include suggestions about both program content and methods: additional recipes with menu ideas; more advanced and in-depth materials; more lessons or home

visits; and more activities with the aide, especially in food preparation. Several Pennsylvania homemakers also mentioned that they would like to see the mailed lessons eliminated, they had general problems with the program, or they disliked the telephone calls. Overall, Pennsylvanians gave more negative responses than homemakers in Massachusetts.

Table 6

Changes in Program Most Frequently Suggested by Homemakers

Program Change	Pennsylvania	Massachusetts
	number of responses	
I. Content		
a. More recipes with menu ideas	12	12
b. More in-depth educational materials	8	5
II. Methods		
a. More home visits	8	2
b. More activities with aide*	4	10
c. More lessons	3	6
d. Eliminate mailed lessons	7	0
e. General program problems	6	1
f. Disliked telephone calls	5	0
III. Other**	18	10
Total responses received	71	46

*Activities include especially food preparation.
**Other includes requests for more general or specific food and nutrition information.

Learning Outcomes of the Project

In an effort to elicit homemaker-generated information, the survey asked homemakers to choose one thing the aide taught them that helped the most. Table 7 shows responses grouped into four categories: food shopping, general nutrition information, menu planning, and other. The largest percentage of Pennsylvania participants and 80 percent in Massachusetts found the food shopping tips to be most helpful. Respondents in both states repeatedly mentioned such tips as making shopping lists, collecting coupons, reading labels for ingredients, and using unit-pricing guidelines. Approximately equal proportions of Pennsylvania (33 percent) and Massachusetts (28 percent) respondents thought the general nutrition information helped them most. In this category, homemakers most often cited the vitamin and protein content of foods and nutrients in general. Twice as many Massachusetts as Pennsylvania respondents said they learned the most from menu planning activities such as using recipes with meat substitutes and regulating serving sizes.

Table 7

Homemakers' Choice of Teaching That Was Most Helpful

Most Helpful Area of Teaching	Pennsylvania	Massachusetts
	percent of respondents	
Food shopping	42	30
General nutrition information	33	28
Menu planning	18	36
Other	7	6
Total percent	100	100
Number of respondents	137	80

As a follow-up to the question about what helped the most, homemakers then were asked to think back before they started the program and to indicate how often they put into practice the learning they mentioned. For example, if a homemaker said that reading food labels was the most helpful information the aide taught her, the interviewer asked her how often she read labels before and after she was in the program. Table 8 shows the reported changes in frequency with which respondents followed the practice they noted.

Table 8

Reported Changes in Frequency With Which Homemakers Followed a Learned Practice

Frequency of Practice	Pennsylvania		Massachusetts	
	Before	After	Before	After
	percent of respondents			
Two or more times a month	13	66	16	86
Once a month or less	21	11	24	4
Never	43	1	48	0
Don't know	23	22	12	10
Total percent	100	100	100	100
Number of respondents	137	137	80	80

While almost half of the homemakers in both states said that before the pilot project they had never practiced the type of learning they mentioned, 66 percent of the respondents in Pennsylvania and 86 percent in Massachusetts indicated they followed the practice two or more times a month by the time they had finished the program. These results show dramatic changes in the frequency with which homemakers reportedly adopted nutritional practices.

Table 9 presents homemakers' suggestions of how the nutrition aides could have been more helpful. A total of 66 percent in Pennsylvania and 83 percent in Massachusetts said there was nothing or they didn't know what

more the aide could have done. Seven percent or fewer of the participants in each state mentioned specific areas such as menu planning or food preparation, shopping, or additional home visits. Other areas homemakers listed included more thorough discussion of lesson material, no mailed lessons, and a suggestion that the teaching be carried out in groups instead of individually.

Table 9

Homemakers' Suggestions of How Aides Could have Been More Helpful

Suggested Area for Additional Help	Pennsylvania	Massachusetts
	percent of respondents	
Nothing	49	69
More about four food groups	2	2
More on menu planning or food preparation	5	7
More about shopping or budgeting	5	0
More home visits	7	2
Answer more questions	5	0
Other	10	6
Don't know	17	14
Total percent	100	100
Number of respondents	149	92

The survey asked participants if they had learned about nutrition from a source other than the aide while they were in the program. Seventy-five percent of Pennsylvania and 82 percent of Massachusetts homemakers said

they had not received information from anywhere outside the program. For the small proportion who had, their information came from friends, neighbors, relatives, or agency materials. Thus, the bulk of nutritional information homemakers acquired came from program sources.

Information Sharing

The questionnaire sought to determine the extent to which participants shared program information, with whom they shared it, how often they shared it, and what information they discussed most frequently.

Almost all homemakers (94 percent) in both states said they had talked about the program with someone other than the aide. Most reported talking with friends, neighbors, or relatives. The total number of people with whom an individual homemaker talked ranged from one to more than ten. In Pennsylvania, approximately equal proportions of respondents shared information with one or two people (22 percent), three or four (26 percent), five or six (24 percent), and seven or more (20 percent). Respondents in Massachusetts were slightly less evenly distributed among one or two persons (22 percent), three or four (26 percent), five or six (17 percent), and seven or more (29 percent). Most Pennsylvania homemakers shared information about two or three times a month; the majority of Massachusetts homemakers discussed the program once a week on a regular basis. From these results, it appears that information sharing for project participants was widespread and frequent.

Table 10 presents summary information on specific items homemakers discussed with others. Items most often mentioned include recipes, general nutrition information, food shopping, budgeting, menu planning, specific nutrition information, and food preparation. Other items such as the use

of leftovers, candy and junk foods, and good eating habits were mentioned less frequently.

Table 10

Specific Program Items Homemakers Most Often Discussed With Others

Program Item	Pennsylvania	Massachusetts
	percent of respondents	
Recipes	20	20
General nutrition information	13	19
Food shopping	12	12
Budgeting	6	13
Menu planning	5	8
Specific nutrition information	10	5
Food preparation	4	3
Other	30	20
Total percent	100	100
Number of responses received	222	111

DISCUSSION AND CONCLUSIONS

In reacting to project teaching methods, homemakers in both states indicated strong preferences for one-to-one lessons in the home, either alone or in combination with mail brochures. Very few respondents said they liked mailed lessons exclusively.

The very similar results from teaching preferences in both states suggest that personal interaction between the nutrition aide and the homemaker is an important factor in conducting effective nutrition lessons. Nutrition aides argue that successful learning experiences often depend on personal relationships with their clients. While the ultimate goals for EFNEP homemakers are the acquisition of knowledge and the adoption of learned practices, nourishment of interpersonal exchange can be important means to these ends.

The rationale for pilot testing home visits in combination with mail and telephone contacts was that the use of mailed lessons would allow aides to expand their clientele by freeing them for additional contacts with unserved homemakers. This could be one way of improving EFNEP's efficiency from the point of view of the aides. Another potential benefit of this alternative strategy is that the mailed lessons gave the homemakers greater flexibility as well. Once the mail brochure arrived, the homemaker could choose the best time to sit down and read through it. She was not restricted to a predetermined period of forty-five minutes in which to study and learn lesson content. She could take as long as she liked to read and reread the brochure. Later it was used as reference material in discussions with the aide. Some homemakers also said they liked the flexibility of mailed lessons because these freed the homemakers' schedules and did not require them to be home as often as the one-to-one lessons. In some cases, homemakers were not comfortable with aides visiting them at home and the mail brochures helped alleviate this concern. Thus, in some instances, home lessons supplemented by mailed information may be better suited to both the client and the nutrition aide.

One can conclude from homemakers' responses on teaching preferences that if the EFNEP program had unlimited resources, the one-to-one teaching method would be preferred. But homemakers also reacted positively to supplementing home lessons with mail and telephone contacts. In light of these findings, it appears that providing homemakers with learning experiences through a combination of direct one-to-one and indirect mail and telephone means is a feasible alternative to direct contact only.

While homemakers in both states indicated a form of home lessons was their most preferred way of learning about nutrition, Pennsylvania and Massachusetts respondents differed in their first choice of teaching method. In Massachusetts, respondents' first choice was a combination of home and mailed lessons. However, Pennsylvania participants most preferred home visits only. Approximately equal proportions of homemakers in each state indicated these first-order preferences.

These different responses may be attributed to rural-urban differences in homemakers' place of residence. Most survey participants in Pennsylvania were rural residents, while those in Massachusetts were urban. Although personal interaction appears to be an important part of receiving nutrition lessons for most homemakers, it may be particularly critical for rural participants. Aides have reported that their homemakers often look forward to home lesson visits because they are one of only a few contacts these homemakers have with persons outside their immediate neighborhood. Aides in Pennsylvania observe that once homemakers establish rapport with their aide, they begin to view her not only as their teacher but as a friend, and they seek her advice on a variety of matters. The aide's status as a nutrition instructor tends to enhance her image as a person with expertise in the eyes of the homemakers.

While the personal and social elements of home visits are also important to the urban homemakers in Massachusetts, these factors may be less critical to the preferences of Massachusetts homemakers for type of teaching method. Because they live in more densely populated areas, urban residents have contacts with a greater number and variety of people. These homemakers may not experience the same physical or geographical isolation as rural Pennsylvanians, and therefore do not emphasize on the home visit in the same way. The use of mail as an instructional tool thus may be better received by participants in urban areas. In order to be equally effective with both rural and urban homemakers, it may be necessary for EFENP to use different teaching methods.

Homemakers in the two states gave positive evaluations of the teaching materials. Flip charts appear to have been an effective medium for teaching. They found the flip charts and mailed lessons provided understandable information in the right quantity. They said the telephone calls were helpful, had the right amount of information, and were of the appropriate length. Most respondents thought the pictures in the flip charts made their understanding of the information easier. Homemakers were generally pleased with the variety of materials used in the project.

At the same time, almost one-fourth of the homemakers in both states expressed the opinions that information in the flip charts was too easy and that the flip chart pictures made no difference to their understanding of the lesson content. These responses suggest that some of the lesson materials did not meet the needs of a substantial portion of the project participants.

If the written information seemed to lack depth and the illustrations did not appear to improve homemakers' comprehension of the materials, then

perhaps the EFNEP audience in fact is more diverse in its abilities than has been thought. The variation in educational levels of survey participants as presented in this report supports but does not explain the observation that homemakers have dissimilar characteristics. As EFNEP curriculum materials are modified and standardized for use in a number of states, program planners as well as writers and editors may want to consider the diverse characteristics of what could be a changing audience of homemakers.

The survey demonstrated that homemakers can be a prime source of information regarding the adequacy of program content. Through questions addressing program changes, homemakers in both states identified nutrition education needs that the project had not met. Responses clearly indicated that homemakers were interested in learning more about foods and nutrition and that they also were willing to invest time in this task. Categories of needs included more information about menu planning, food shopping and/or budgeting, and food preparation. Homemakers specifically requested more recipes, more in-depth materials on all topics, and more home visits and lessons. They also requested more activities with the nutrition aide; homemakers especially were interested in activities that involved food preparation. They felt the nutrition aides were helpful in teaching not only general nutrition information but also food shopping and menu planning skills.

While general program reactions were positive, fewer Pennsylvania than Massachusetts participants said they had recommended the program to other people. In addition, more Pennsylvania respondents gave negative suggestions for program changes they would like to have seen. Most of

these suggestions related to project methods--the elimination of mailed lessons, general program problems, and their dislike of telephone calls.

Pennsylvania participants generally appeared less satisfied with the overall program than their colleagues in Massachusetts. However, the differences between states should be viewed with some caution. While these responses support the previous finding that Pennsylvanians found the mail plus telephone method less satisfactory than those in Massachusetts, they also suggest that the type of self-selection used to recruit participants in Massachusetts in fact may have influenced the general program impressions of these homemakers. Because Massachusetts survey participants also chose to be part of a longer follow-up study, they seemed to view the program more favorably than the Pennsylvania homemakers.

Homemakers reported dramatic changes in food and nutritional practices as a result of program instruction. Not only did they report adopting new practices, but they said that once they adopted the practices they used them frequently.

These reported changes are important for two reasons. The program appears to have had a favorable impact on food and nutritional practices of participating homemakers. One objective of EFNEP is to improve clients' food and nutrition practices; another is to raise clients' level of nutritional knowledge. While the latter can be taught and measured relatively easily, behavioral effects are more difficult to achieve. Yet with an audience of low-income homemakers, most of whom were food stamp recipients, it was particularly critical for the pilot nutrition instruction to have direct application to day-to-day practices. The project appears to have accomplished this, as measured by the participants themselves.

The practices also were adopted soon after they were taught, so that by the time homemakers completed the lessons the frequency of applying a particular type of learning had increased considerably. There is no guarantee that homemakers maintained their reported levels of adoption frequency. However, the shift from almost half of the respondents indicating they had never before followed a practice to at least two-thirds noting they had implemented it two or more times a month indicates effectiveness of the project.

Finally, nine out of ten homemakers said they communicated the information they learned to other people on a regular basis. They shared information with a variety of people, not only immediate relatives. The items they discussed most often related to recipes, food shopping, budgeting, and specific as well as general nutrition. Information dissemination appears to have reached beyond the core of participating homemakers by means of this informal small group process. Participants perhaps gained support from this network of interested people at the same time as others benefited from the educational content of the teaching. As a result, even though project instruction was implemented on a one-to-one basis, the EFNEP program extended its services to a larger audience.

SUMMARY

Survey results of the EFNEP/Food Stamp Project show that low-income homemakers were very interested in receiving all kinds of food and nutrition information which would help them in their daily routines. Homemakers were very interested in consumer information, especially if it dealt with strategies for stretching the food dollar. The degree of

interest that homemakers expressed in the project and its content supports the argument for providing homemakers with nutrition education programs during difficult economic times.

Even though the most preferred method of learning appeared to be one-to-one lessons in the home, homemakers were receptive to the alternative method of combining direct and indirect contacts as used in the project. Homemakers felt they had changed old habits and/or adopted new ones as a result of participating in the program. Finally, almost all homemakers reported sharing learned information with others.

Thus, this project appears to have used techniques and materials generally acceptable to homemakers. It also seems to have addressed basic food and nutrition needs of participants and to have affected their daily food-related practices. An awareness of individual homemaker characteristics can help make the program information better suited to a diverse audience. In addition, some adaptation of methodology and content by local program staff may be necessary before these materials can be used successfully in both rural and urban communities.

APPENDIX

Survey Questionnaire

EFNEP/FOOD STAMP PILOT PROJECT EVALUATION

PSU TELEPHONE INTERVIEW
(Graduated Homemakers Only - No Controls)

DATE _____

COUNTY ID _____

AIDE ID _____

HOMEMAKER ID _____

GROUP ASSIGNMENT ___E ___T ___0

CALL ATTEMPTS

1. (date) _____ (time) _____

2. _____ _____

3. _____ _____

(INTERVIEWER) May I speak to (HOMEMAKER) _____? This is (GIVE NAME) from Penn State. I'm calling about the Smart Shopping Good Eating nutrition program you just finished. I'd like to talk to you for a few minutes if this is a good time. (IF NOT, CALL BACK) (1) _____, (2) _____, (3) _____

We are asking homemakers questions about the Smart Shopping Good Eating program to find out how you enjoyed it and who you might have talked to about it. We would appreciate you telling us what you both liked and didn't like about the program. Do you have any questions before I begin?

		CODING COLUMN
1. Have you recommended this program to others? (DO NOT READ)		
NO	1	
YES (GO TO QUESTION 3)	2	
DON'T KNOW	9	1
2. If you haven't, would you recommend this program to others? (DO NOT READ)		
NO - why not? _____	1	
YES	2	
DON'T KNOW	9	2

3. The teaching method you received was ____ (SEE GROUP ASSIGNMENT):

(FOR EXPERIMENTALS) That is, you received mailed lessons as well as lessons at home.

(FOR TRADITIONALS) That is, you received lessons at home.

From the following items, please choose the method you most prefer for learning about nutrition.

CODING COLUMN

a. (FOR EXPERIMENTAL HOMEMAKERS ONLY)

For the kind of lessons, would you most prefer

lessons in your home 1
mailed lessons 2
or some lessons at home and some mailed 3
OTHER - what? _____ 8
DON'T KNOW ..... 9 — 3

b. For the number of lessons, would you most prefer

fewer lessons 1
the same number of lessons 2
or more lessons 3
DON'T KNOW ..... 9 — 4

c. For how often you receive the lessons, would you most prefer

less frequent lessons 1
the same frequency of lessons 2
or more frequent lessons 3
DON'T KNOW ..... 9 — 5

d. For additional materials, would you most prefer

activities 1
or handouts 2

(FOR EXPERIMENTAL HOMEMAKERS ONLY)

or mailed lesson activity sheets 3
DON'T KNOW ..... 9 — 6

- ask one -

4. (TRADITIONAL HOMEMAKERS) We'd like to know how you liked the flipcharts. Consider all the times the aide used the flipcharts.

CODING COLUMN

a. Was the written information

too hard to understand	1	
generally understandable	2	
or too easy	3	
DON'T KNOW	9	7

b. Did the lessons have

too little information	1	
the right amount of information	2	
or too much information	3	
DON'T KNOW	9	8

c. Did the pictures

make it harder to understand the information	1	
make it easier to understand the information	2	
or neither helped nor hurt your understanding of the information	3	
DON'T KNOW	9	9

4. (EXPERIMENTAL HOMEMAKERS) We'd like to know how you liked the different parts of the lessons.

a. First the flipcharts. Consider all the times the aide used the flipcharts.

1) Was the written information

too hard to understand	1	
generally understandable	2	
or too easy	3	
DON'T KNOW	9	7

2) Did the lessons have

too little information	1	
the right amount of information	2	
or too much information	3	
DON'T KNOW	9	8

CODING COLUMN

3) Did the pictures

make it harder to understand the information ..	1	
make it easier to understand the information ..	2	
or neither helped nor hurt your understanding of the information	3	
DON'T KNOW	9	9

b. Now the mailed lessons. Take a minute to think of the 7 lessons you received in the mail. These are the folded pamphlets with the recipes on the back.

1) Was the information

too hard to understand	1	
generally understandable	2	
or too easy	3	
DON'T KNOW	9	10

2) Did the lessons have

too little information	1	
the right amount of information	2	
or too much information	3	
DON'T KNOW	9	11

3) Were the pamphlets

too small	1	
the right size	2	
or too big	3	
DON'T KNOW	9	12

4) How many of the recipes did you try?

(DO NOT READ)

ONE, TWO OR THREE	1	
FOUR, FIVE OR SIX	2	
SEVEN, EIGHT OR NINE	3	
DON'T KNOW	9	13

c. Finally the telephone calls. After each mailed lesson the aide called to see that you had received it and to answer your questions. Consider these calls all together.

CODING COLUMN

1) Were the calls

too short	1	
the right length of time	2	
or too long	3	
DON'T KNOW	9	14

2) Did the aide discuss

too little information	1	
the right amount of information	2	
or too much information	3	
DON'T KNOW	9	15

3) Were the calls

not at all helpful	1	
generally helpful	2	
or very helpful	3	
DON'T KNOW	9	16

5. What would you like to see changed in the program? (PROBE - Anything else?)

(RESPONSE) _____

_____ 1

NOTHING	2	
DON'T KNOW	9	17

CODING COLUMN

6. If you could choose only one thing, what did the aide teach you that helped you the most? Please be as specific as you can.

(RESPONSE) _____

_____

(DO NOT READ)

GENERAL NUTRITION INFORMATION (4 FOOD GROUPS)	1	
MENU PLANNING	2	
FOOD SHOPPING	3	
OTHER	8	
DON'T KNOW .....(GO TO QUESTION 9)	9	18

7. Before you started the Smart Shopping Good Eating program, how often did you _____ (NAME PRACTICE FROM QUESTION 6)?

(DO NOT READ)

NEVER	1	
LESS THAN ONCE A MONTH	2	
ABOUT ONCE A MONTH	3	
2 OR 3 TIMES A MONTH	4	
ABOUT ONCE A WEEK	5	
2 OR 3 TIMES A WEEK OR MORE	6	
DON'T KNOW	9	19

8. Now that you have finished the Smart Shopping Good Eating program, how often do you _____ (NAME PRACTICE FROM QUESTION 6)?

(DO NOT READ)

NEVER	1	
LESS THAN ONCE A MONTH	2	
ABOUT ONCE A MONTH	3	
2 OR 3 TIMES A MONTH	4	
ABOUT ONCE A WEEK	5	
2 OR 3 TIMES A WEEK OR MORE	6	
DON'T KNOW	9	20

CODING COLUMN

9. While you were receiving lessons, did you learn about nutrition from anywhere other than the aide?

(DO NOT READ)

NO (GO TO QUESTION 11)	1	
YES	2	
DON'T KNOW (GO TO QUESTION 11)	9	21

10. Where else did you learn about nutrition? (PROBE - Anywhere else?)

(DO NOT READ) (CIRCLE ALL THAT APPLY)

FRIENDS, NEIGHBORS OR RELATIVES	1	22
AGENCIES	1	23
NEWSPAPERS	1	24
TV OR RADIO	1	25
OTHER - what? _____	8	26
DON'T KNOW	9	27

11. If you could choose only one thing, what could the aide have done that would have helped you more?

(RESPONSE) _____

_____

(DO NOT READ)

TAUGHT MORE ABOUT 4 FOOD GROUPS (GENERAL NUTRITION)	1	
TAUGHT MORE ABOUT MENU PLANNING OR FOOD PREPARATION	2	
TAUGHT MORE ABOUT SHOPPING OR BUDGETING	3	
MADE MORE HOME VISITS	4	
ANSWERED MORE QUESTIONS	5	
NOTHING	6	
OTHER	8	
DON'T KNOW	9	28

There are just a few more questions.

CODING COLUMN

12. Many people like to discuss new experiences with others. Now we'd like to know who you talked with about the nutrition program. While you were receiving nutrition lessons, did you talk about the program with anyone other than the aide?

NO (CONCLUDE INTERVIEW - Thank you for your time and cooperation; we also appreciate your participation in the Smart Shopping Good Eating program.) 1

YES 2

DON'T KNOW, DON'T REMEMBER (CONCLUDE INTERVIEW - Thank you for your time and cooperation; we also appreciate your participation in the Smart Shopping Good Eating program.) ..... 9 — 29

13. Who did you talk with? (IF HOMEMAKER SEEMS RELUCTANT TO SAY, ADD, You do not need to give us the name of the person; PROBE - Anyone else?)

(DO NOT READ) (CIRCLE ALL THAT APPLY)

FRIEND(S) OR NEIGHBOR(S) ..... 1 — 30

RELATIVE(S) ..... 1 — 31

OTHER(S) - who? _____ 8 — 32

DON'T KNOW ..... 9 — 33

14. How many people did you talk with all together?

(DO NOT READ)

ONE OR TWO 1

THREE OR FOUR 2

FIVE OR SIX 3

SEVEN OR EIGHT 4

NINE OR TEN 5

MORE THAN TEN 6

DON'T KNOW ..... 9 — 34

CODING COLUMN

15. Was this person participating in the program? (How many of these people were)

(DO NOT READ)

NONE	1	
ONE	2	
TWO	3	
THREE	4	
FOUR	5	
FIVE	6	
MORE THAN FIVE	7	
DON'T KNOW	9	35

16. What specific things related to the program did you talk about with this person? (PROBE - Anything else?) (these people)

(RESPONSE) _____

_____

_____ 1

DON'T KNOW 9 36

This is the last question.

17. What is the most often you talked with any one person?

(DO NOT READ)

LESS THAN ONCE A MONTH	1	
ABOUT ONCE A MONTH	2	
2 OR 3 TIMES A MONTH	3	
ABOUT ONCE A WEEK	4	
2 OR 3 TIMES A WEEK	5	
ONCE A DAY	6	
DON'T KNOW	9	37

Thank you for your time and cooperation; we also appreciate your participation in the Smart Shopping Good Eating program.

INTERVIEWER COMMENTS _____

_____

_____